

FLORIDA ENGINEERING





## About Us

McLaren Engineering Group is a leading full-service engineering firm renowned for its trusted, high quality and innovative approach to solving complex challenges. With industry experts in multiple technical disciplines, our team has provided customized solutions for over 15,000 projects through consultation, design, inspection and construction management. With over four decades of experience, a staff of 250+, and 11 offices worldwide, McLaren addresses every project's specific needs with technical excellence and creative innovation.

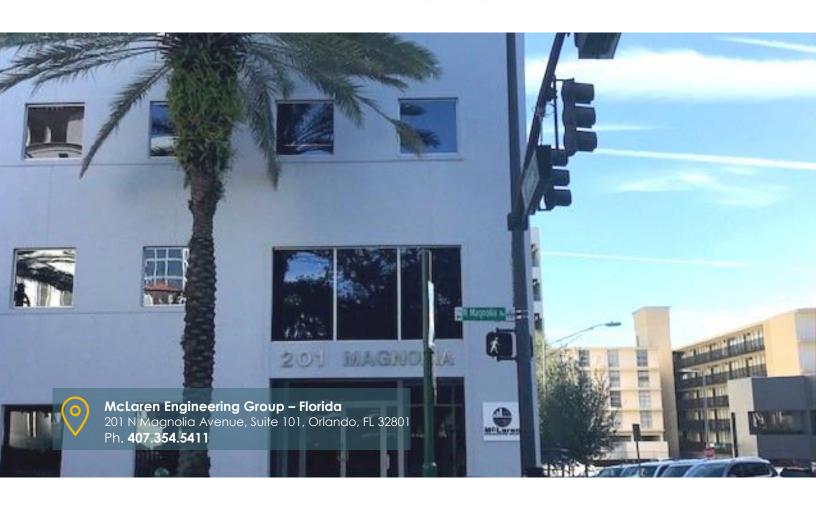


Andrew Habel, PE
Florida Regional Director
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15,000+ Projects Completed 11 Offices Worldwide

Years of Applied Ingenuity



## **CORE TECHNICAL SERVICES**

STRUCTURAL | CIVIL + SITE | MARINE + COASTAL | BRIDGE, HIGHWAY + RAIL

ENTERTAINMENT | GEOTECHNICAL | FACADE + BUILDING ENVELOPE

CONSTRUCTION ENGINEERING | FORENSICS | SURVEY + MAPPING



# FULL-SERVICE ENGINEERING

McLaren is a top engineering firm that provides custom, full-service building solutions throughout Orlando, the greater Florida area, and around the nation.

Our iconic work in infrastructure, transportation, marine, and real estate development supports both private and public projects of nearly every size, shape and scope. With a diverse portfolio, high-quality services and state-of-the-art capabilities, McLaren is a trusted leader in Florida's built environment.

We offer comprehensive engineering services and solutions that take any project from concept to completion with expert consultation, planning, permitting, design, construction support, inspection, and project management.

Structural Engineering

Facade + Envelope Engineering

Civil/Site Planning + Development

Geotechnical Engineering

Marine + Coastal Engineering

Bridge, Highway + Rail Engineering

Signage + Displays

Entertainment Engineering

Surveying + Inspection

Construction Engineering

Forensic Investigations





City of Orlando On-Call Structural Engineering



John H. Jackson Community Center Facility Upgrades



The Flats at Tioga Town Center Mixed-Use Buildings

# STRUCTURAL ENGINEERING

With a wide range of services spanning from concept to completion, McLaren's structural engineering group is built on a foundation of technical excellence, cutting-edge capabilities, pragmatic solutions, and a sensitivity for aesthetics.

Offering multidisciplinary consulting, analysis, design, project management, and construction phase support, our expert structural engineers enable clients to best meet all project goals while building more efficiently and cost-effectively.

## Structural Services

Consultation & Design Support

New Facility Construction

Retrofits & Tennant Improvements

Structured Parking Development

Renovations, Additions & Restoration

Building Envelope & Façade Engineering

Structural Analysis & Inspections



# FACADE ENGINEERING

McLaren's facade engineering services put focus on the entire building envelope – the largest, most important factor in the technical performance and overall aesthetic of any structure.

Built on a foundation of construction engineering knowledge and structural expertise, our firm uniquely understands the interdependence of envelope elements throughout the project life-cycle. This custom approach helps our facade and envelope engineers to best improve constructability, maximize energy efficiency, strengthen security and enhance architectural vision.

## **Envelope Services**

**Envelope Consultation** 

Delegated Design

Glass & Glazing

Metal Panels & Specialty Structures

Stone & Brick

Inspection, Investigation & Remediation



Camden Lake Eola Apartments, Orlando



Zaha Hadid Building, NYC



Primera Towers Façade Renovation, Lake Mary



# GEOTECHNICAL ENGINEERING

McLaren's Geotechnical Engineering team specializes in analyzing the behavior of earthen materials and how they interact with man-made elements such as foundations, flatwork and pipelines. Our geotechnical engineers use principles of soil mechanics and rock mechanics to investigate subsurface conditions and materials, determine the relevant physical/mechanical and chemical properties of these materials, evaluate stability of natural slopes and man-made soil deposits, assess risks posed by site conditions, design earthworks and structure foundations and monitor site conditions, earthwork and foundation construction.



Environmental & Soils Analysis

Foundation Engineering

Site Planning & Development

Roadway Engineering

Above & Underground Utilities Support

Permit Acquisitioning

Consultation, Design & Investigation Support



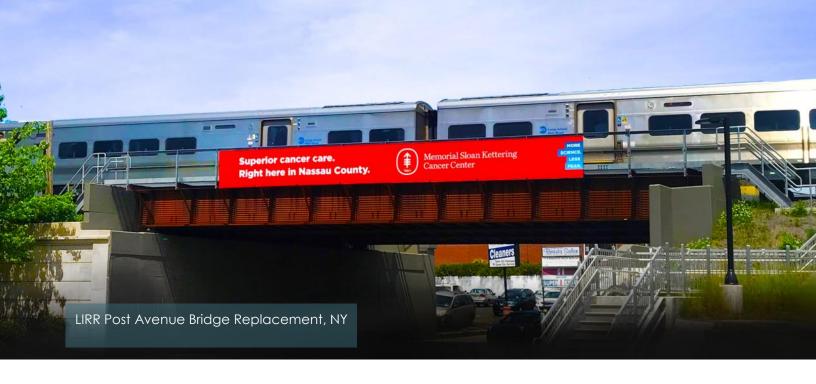
**Ground Improvements** 



Pile Testing



Foundation Engineering





Confidential Pedestrian Bridge, Orlando



Diverging Diamond Intersection, MD



Design-Build Rail to Trail Conversion, NY

# BRIDGE + ROADWAY ENGINEERING

McLaren's Bridge/Roadway Division has engineered bridges and roadways of all shapes, scopes and sizes nationwide. Our team is routinely called upon to complete design builds, specialty inspections, assessments and investigations.

We are known throughout the industry for our innovative designs of bridges and roadway structures; as well as providing bridge condition and roadway structure assessments, inspection and maintenance; and rehabilitative designs for bridges, culverts, retaining walls and overhead sign structures.

## Bridge + Roadway Services

Design-Build

Pedestrian Bridges

Truss, Arch, Beam, Cantilever & Suspension Bridges

Repair & Rehabilitation Design

Seismic Evaluation & Retrofit Design

Structural Evaluation

Sound Barriers

Load Rating

Inspections & Studies

Safety Inspection



## MARINE ENGINEERING

The design of marine facilities requires effective integration of coastal, structural and geotechnical engineering principles. This combination of skills allows us to offer indepth waterfront engineering services spanning inspection, design and rehabilitation of marine facilities, ports, terminals, piers, bulkheads, and landings in any environment.

We provide industry leading solutions for any type of project – the design-build of a new facility, renovation and expansion of an existing site, creation of living shorelines, or an underwater inspection and rehabilitation.

## Marine Services

Waterfront Consultation & Design

Above & Underwater Inspections

Bulkhead, Dock & Wharf Design

Berthing/Mooring Analysis

Regulatory Permitting

Flood Risk Management

Living Shorelines

Coastal Analysis and Regulatory Coordination



Atlantic Pier Reconstruction, Jacksonville



Dive Inspection Services, Dominican Republic



National Aquarium Floating Wetlands, MD



# SIGNAGE SERVICES

From roadway and ground mounted signage to architectural and LED displays, we provide clients with cutting-edge design, engineering, and expertise.

Our team offers structural engineering and construction support for new sign design, installation, upgrade, rehabilitation, and removal for both public and private clients.



Roadway Signage

Billboards + Overpass Signage

Ground Mounted Signage

Wayfinding

Video Signage & Billboards

Storefront & Architectural Signage

Video Walls

Custom Exhibits & Displays

Temporary Structures

Mechanized Displays



University of Miami Murals & Lighting



Monopole Signage



LED Sign, Times Square



# ENTERTAINMENT ENGINEERING

With a reputation for visionary entertainment engineering and design, McLaren offers a unique blend of imaginative artistry and cutting-edge technical capabilities. For over 40 years, our firm has been leading the entertainment industry with expert structural engineers, mechanical engineers and entertainment specialists.

We have helped create some of the best productions, events, concerts, displays, staging and entertainment facilities worldwide. Working with the biggest names in the business, our iconic work has revolutionized the audience experience with never-before-seen feats of engineering.

## **Entertainment Services**

Live Entertainment Engineering

Entertainment Facility Structural Engineering

Rigging, Staging, & Show Action Machinery

**Architectural Theming** 

Theme Park Engineering

Signage & Displays



St. Petersburg Coliseum Stage Grid



Confidential Theme Park Engineering, Orlando



Dr. Phillips PAC Performance Platforms, Orlando



# CONSTRUCTION ENGINEERING

From large infrastructure projects to buildings to specialty structures, our engineers can best determine optimal and cost-effective means and methods of design, planning, construction, and project management.

Our expert staff provide a diverse line of custom services including crane plans, permitting, rigging solutions, designs of temporary supports, bracing, and construction sequencing for both new and renovation projects. Our company also provides conventional design of steel structures and connections in addition to providing specialty structural engineering services (SSE) for delegated design elements.



Connection Design

Miscellaneous Metals

Support of Excavation (SOE)

Demo/Erection Sequencing

Cranes Plans

Rigging Solutions

Structural Lifting

Temporary Shoring

Jacking



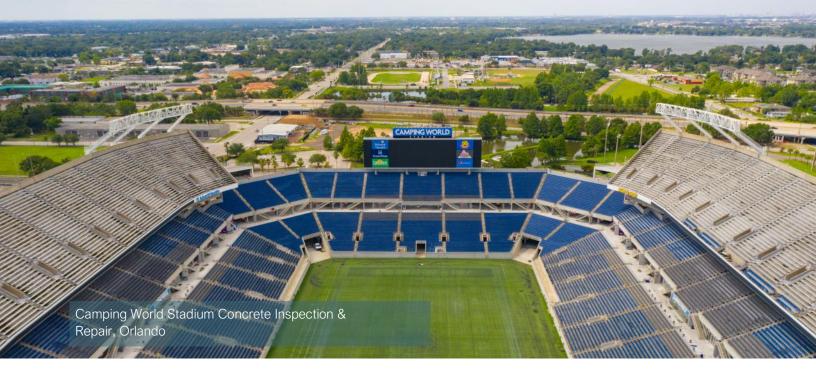
Rigging Solutions

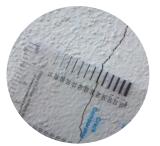


Construction Sequencing



Crane Engineering





College Park Community Center Condition Evaluation, Orlando



Boardwalk Super Grid Collapse



I-40 Bridge Collapse Accident Reenactment

# FORENSIC INVESTIGATION

Founded on our diverse multi-discipline technical engineering capabilities, McLaren's forensic experts are renowned for investigating, analyzing, simulating and presenting the evidence for some of the nation's most well-known collapses, failures, accidents, disputes and deficiencies.

Our team is focused on investigating the cause of an incident, analyzing who/what is responsible and identifying what can be done to mitigate reoccurrence. McLaren offers full litigation support, offering high tech investigation capabilities to develop detailed analyses, narrative reports, demonstrative evidence and expert witness testimony.

## Forensic Services

Investigative Engineering
Litigation Support
Narrative Reports
Demonstrative Evidence
Expert Witness Testimony
Accident Reconstruction
In-House Graphic Modeling
Investigation and Analysis
Forensic Metallurgy
Condition Surveys
State-of-the-Art Geomatic Investigation



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